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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FEB 23 2010

Bureau of Land Management
Farmington Field Office

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-079047 Unit Reporting Number NMNM-78424A
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator ConocoPhillips Company	7. Unit Agreement Name San Juan 32-8 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name OIL CONS. DIV. DIST. 3 RCVD MAR 16 '10
4. Location of Well Surf: Unit C (NENW), 1291' FNL & 1290' FWL Bottomhole: Unit E (SWNW), 2505' FNL & 1205' FWL Surf: Latitude: 36.900829° N (NAD83) Longitude: 107.649519° W Bottomhole: Latitude: 36.897498° N (NAD83) Longitude: 107.649882° W	9. Well Number 23N 10. Field, Pool, Wildcat Blanco MV / Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) C Sec. 14, T31N, R8W API # 30-045-35114
14. Distance in Miles from Nearest Town 35 miles / Bloomfield	12. County San Juan
15. Distance from Proposed Location to Nearest Property or Lease Line 1205'	13. State NM
16. Acres in Lease 880.00	17. Acres Assigned to Well 320.00 W/2 - MV/DK
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 72' from San Juan 32-8 Unit 23M (MV/DK)	
19. Proposed Depth 8210'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6653' GL	22. Approx. Date Work will Start BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Crystal Tafoya</u> Crystal Tafoya (Regulatory Tech)	Date <u>2/23/2010</u>

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or presentations as to any matter within its jurisdiction.

Example Master Plan Type 3

Bond Numbers ES-0048 and ES-0085

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

MAR 17 2010

NMOCDF

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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FEB 23 2010

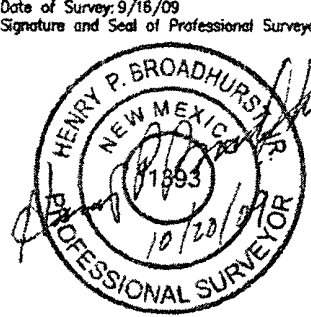
Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 7 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

Bureau of Land Management
WELL LOCATION AND ACREAGE

¹ API Number 30-045- 35114		² Pool Code 71599 / 72319		³ Pool Name BASIN DAKOTA / BLANCO MESAVERDE					
⁴ Property Code 31330		⁵ Property Name SAN JUAN 32-8 UNIT						⁶ Well Number 23N	
⁷ OGRID No 217817		⁸ Operator Name CONOCOPHILLIPS COMPANY						⁹ Elevation 6653	
¹⁰ SURFACE LOCATION									
UL or lot no. C	Section 14	Township 31-N	Range 8-W	Lot Idn	Feet from the 1291	North/South line NORTH	Feet from the 1290	East/West line WEST	County SAN JUAN
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. E	Section 14	Township 31-N	Range 8-W	Lot Idn	Feet from the 2505	North/South line NORTH	Feet from the 1205	East/West line WEST	County SAN JUAN
¹² Dedicated Acres 320.00 (W/2)		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ N 89°37'16" W BLM N 89°26' W 1954 2584.2' (M) 2583.5' (R)		2582.5' (M) 2583.4' (R)	BLM 1954	WELL FLAG NAD 83 LAT: 38.900829° N LONG: 107.649519° W NAD 27 LAT: 36°54.049520° N LONG: 107°38.934430° W	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Crystal Tafoya</i> 11/3/09 Signature Crystal Tafoya Printed Name Regulatory Technician Title and E-mail Address November 13, 2009 Date
1290' 0°53'04" E 1'01" E 2505' 1205'		1291' S 4°53'03" W 1217.5'	BOTTOM HOLE NAD 83 LAT: 36.897498° N LONG: 107.649882° W NAD 27 LAT: 36°53.849627° N LONG: 107°38.956183° W		
W/2 DEDICATED ACREAGE USA SF-079047 SECTION 14, T-31-N, R-8-W		BASIS OF BEARING IS THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION AND NGS/OPUS SOLUTION.			¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plot was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey: 9/16/09 Signature and Seal of Professional Surveyor:  Certificate Number: NM 11393

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 32-8 UNIT 23N

DEVELOPMENT

Lease:		AFE #: WAN.CDR.9331				AFE \$: 1,128,277.36	
Field Name: SAN JUAN		Rig: Aztec Rig 730		State: NM	County: SAN JUAN		API #:
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist:		Phone:		Prod. Engineer:		Phone:	
Res. Engineer:		Phone:		Proj. Field Lead:		Phone:	
Primary Objective (Zones):							
Zone	Zone Name						
FRR	BASIN DAKOTA (PRORATED GAS)						
RON	BLANCO MESAVERDE (PRORATED GAS)						
Location: Surface		Datum Code: NAD/27				Directional	
Latitude: 36.900825	Longitude: -107.648907	X:	Y:	Section: 14	Range: 008W		
Footage X: 1290 FWL	Footage Y: 1291 FNL	Elevation: 6653	(FT)	Township: 031N			
Tolerance:							
Location: Bottom Hole		Datum Code: NAD/27				Directional	
Latitude: 36.897494	Longitude: -107.649270	X:	Y:	Section: 14	Range: 008W		
Footage X: 1205 FWL	Footage Y: 2505 FNL	Elevation:	(FT)	Township: 031N			
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2010		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6668 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks	
Surface Casing	200	6468	☐			12-1/4 hole. 200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.	
NACIMIENTO	947	5721	☐				
OJO ALAMO	2362	4306	☐				
KIRTLAND	2452	4216	☐				
FRUITLAND	3052	3616	☐			Possible Gas	
PICTURED CLIFFS	3540	3128	☐				
LEWIS	3648	3020	☐				
Intermediate Casing	3748	2920	☐			8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 899 cuft. Circulate cement to surface.	
HUERFANITO BENTONITE	4318	2350	☐				
CHACRA	4712	1956	☐				
UPPER CLIFF HOUSE	5187	1481	☐			Gas; Est. Top Perf - 5189 (1479)	
MASSIVE CLIFF HOUSE	5483	1185	☐	538		Gas; Cliffhouse is dry	
MENEFEE	5530	1138	☐				
POINT LOOKOUT	5856	812	☐				
MANCOS	6212	456	☐				
UPPER GALLUP	7159	-491	☐				
GREENHORN	7896	-1228	☐				
GRANEROS	7952	-1284	☐				
TWO WELLS	8048	-1380	☐	3410		Gas	
PAGUATE	8075	-1407	☐				
UPPER CUBERO	8086	-1418	☐				
LOWER CUBERO	8116	-1448	☐			Est. Btm Perf - 8176 (-1508) based on offset wells	

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 32-8 UNIT 23N

DEVELOPMENT

ENCINAL	8180	-1512	☐	TD - 30' below T/ENCN
Total Depth	8210	-1542	☐	6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC casing. Cement w/ 607 cuft. Circulate cement a minimum of 100' inside the previous casing string.

Reference Wells:

Reference Type	Well Name	Comments
Production	SJ 32-8 18	31N 8W 11 NW SE SW
Production	SJ 32-8 SWD 303	31N 8W 14 NE SW NW
Production	SJ 32-8 29M	31N 8W 11 NW SE SE
Production	SJ 32-8 18N	31N 8W 11 SE NW SW

Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other

Cased Hole GR / CBL

Mudlog from 100' above top of GRHN to TD - mudlogger will call TD.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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ConocoPhillips or its affiliates
Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 32-8 #23N
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 6668 0ft (AWS rigs)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6668 0ft (AWS rigs)
Site:	San Juan 32 Wells	North Reference:	True
Well:	SJ 32-8 #23N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principal Wellbore		
Design:	Plan #1		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
230.0	230.0	9 5/8" Surface Casing	9-5/8	12-1/4	
3,993.8	3,748.0	7" Intermediate Casing	7	8-3/4	
8,455.8	8,210.0	4 1/2" Production Casing	4-1/2	6-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
8,331.8	8,086.0	Upper Cubero		0.00		
8,455.8	8,210.0	Total Depth		0.00		
8,141.8	7,896.0	Greenhorn		0.00		
5,775.8	5,530.0	Menefee		0.00		
5,728.8	5,483.0	Massive Cliffhouse		0.00		
6,101.8	5,856.0	Point Lookout		0.00		
958.8	947.0	Nacimiento		0.00		
8,425.8	8,180.0	Encinal		0.00		
3,785.4	3,540.0	Pictured Cliffs		0.00		
3,893.8	3,648.0	Lewis		0.00		
7,404.8	7,159.0	Upper Gallup		0.00		
6,457.8	6,212.0	Mancos		0.00		
8,197.8	7,952.0	Graneros		0.00		
3,281.4	3,052.0	Fruitland		0.00		
8,293.8	8,048.0	Two Wells		0.00		
5,432.8	5,187.0	Upper Cliff house		0.00		
4,957.8	4,712.0	Chacra		0.00		
4,563.8	4,318.0	Huefanito Bentonite		0.00		
2,619.5	2,452.0	Kirtland		0.00		
8,320.8	8,075.0	Paguate		0.00		
8,361.8	8,116.0	Lower Cubero		0.00		
2,519.9	2,362.0	Ojo Alamo		0.00		

REFERENCE INFORMATION

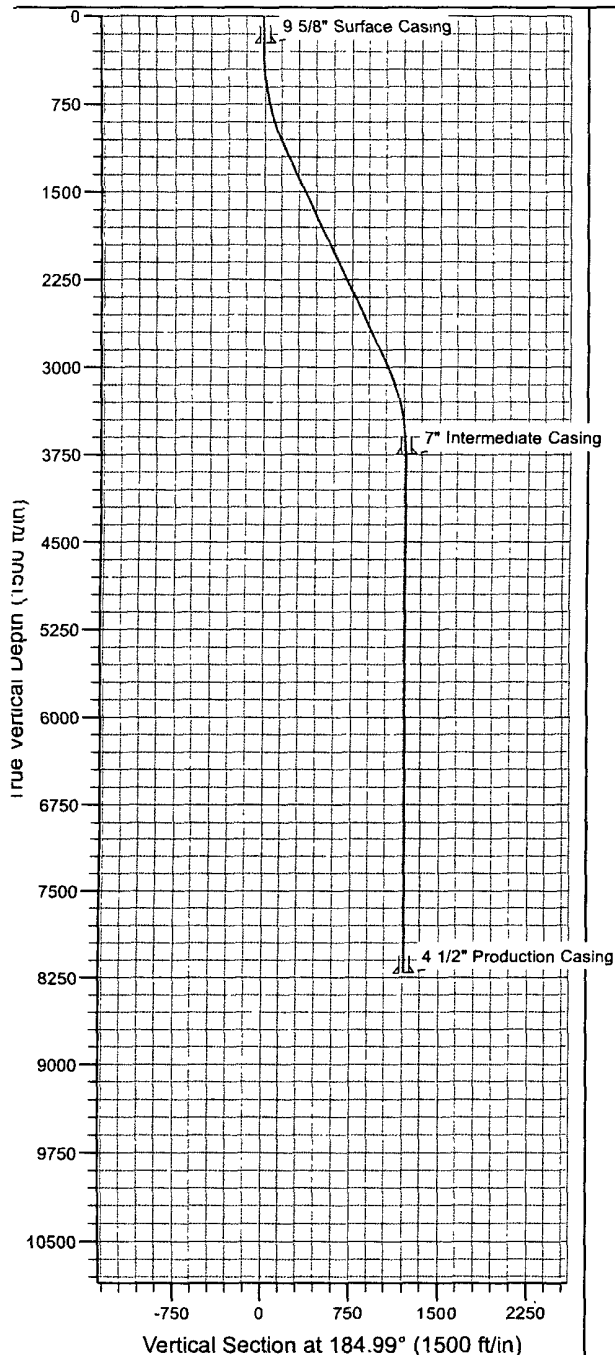
RKB @ 6668.0ft (AWS rigs)
Ground Elevation 6653.0
Reference Lat: 36° 54' 2.971 N
Reference Long: 107° 38' 56.066 W

Project: San Juan Basin - New Mexico Wells
Site: San Juan 32 Wells
Well: SJ 32-8 #23N
Wellbore: Principal Wellbore
Design: Plan #1



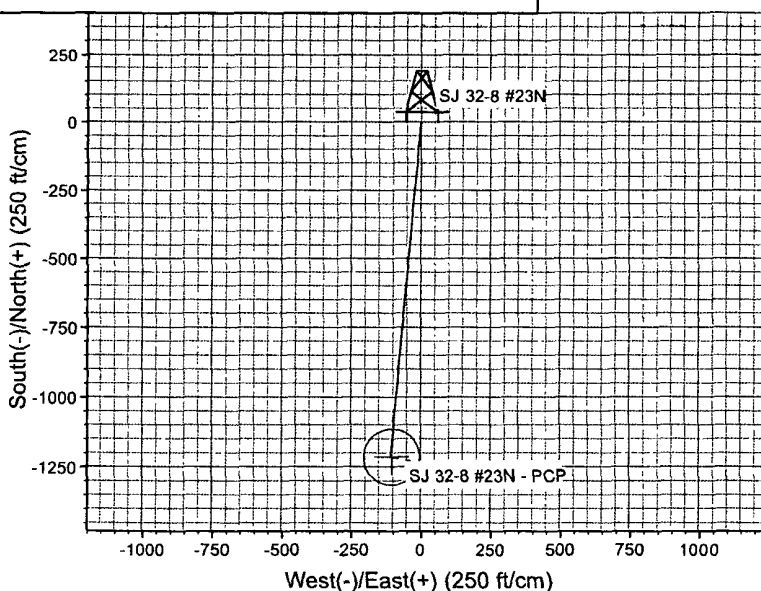
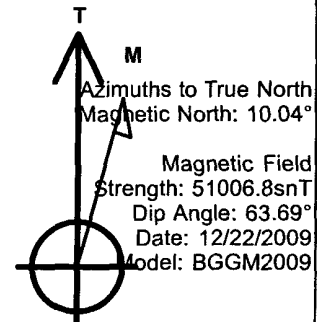
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.0	
3	1165.4	25.36	184.99	1138.1	-183.4	-16.0	3.00	184.99	184.1	
4	3148.4	25.36	184.99	2929.9	-1029.5	-90.0	0.00	0.00	1033.5	
5	3993.8	0.00	0.00	3748.0	-1212.9	-106.0	3.00	180.00	1217.5	SJ 32-8 #23N - ICP
6	8455.8	0.00	0.00	8210.0	-1212.9	-106.0	0.00	0.00	1217.5	SJ 32-8 #23N - PCP



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
947.0	958.8	Nacimiento
2362.0	2519.9	Ojo Alamo
2452.0	2619.5	Kirtland
3052.0	3281.4	Fruitland
3540.0	3785.4	Pictured Cliffs
3648.0	3893.8	Lewis
4318.0	4563.8	Huefanito Bentonite
4712.0	4957.8	Chacra
5187.0	5432.8	Upper Cliff house
5483.0	5728.8	Massive Cliffhouse
5530.0	5775.8	Menefee
5856.0	6101.8	Point Lookout
6212.0	6457.8	Mancos
7159.0	7404.8	Upper Gallup
7896.0	8141.8	Greenhorn
7952.0	8197.8	Graneros
8048.0	8293.8	Two Wells
8075.0	8320.8	Paguate
8086.0	8331.8	Upper Cubero
8116.0	8361.8	Lower Cubero
8180.0	8425.8	Encinal
8210.0	8455.8	Total Depth



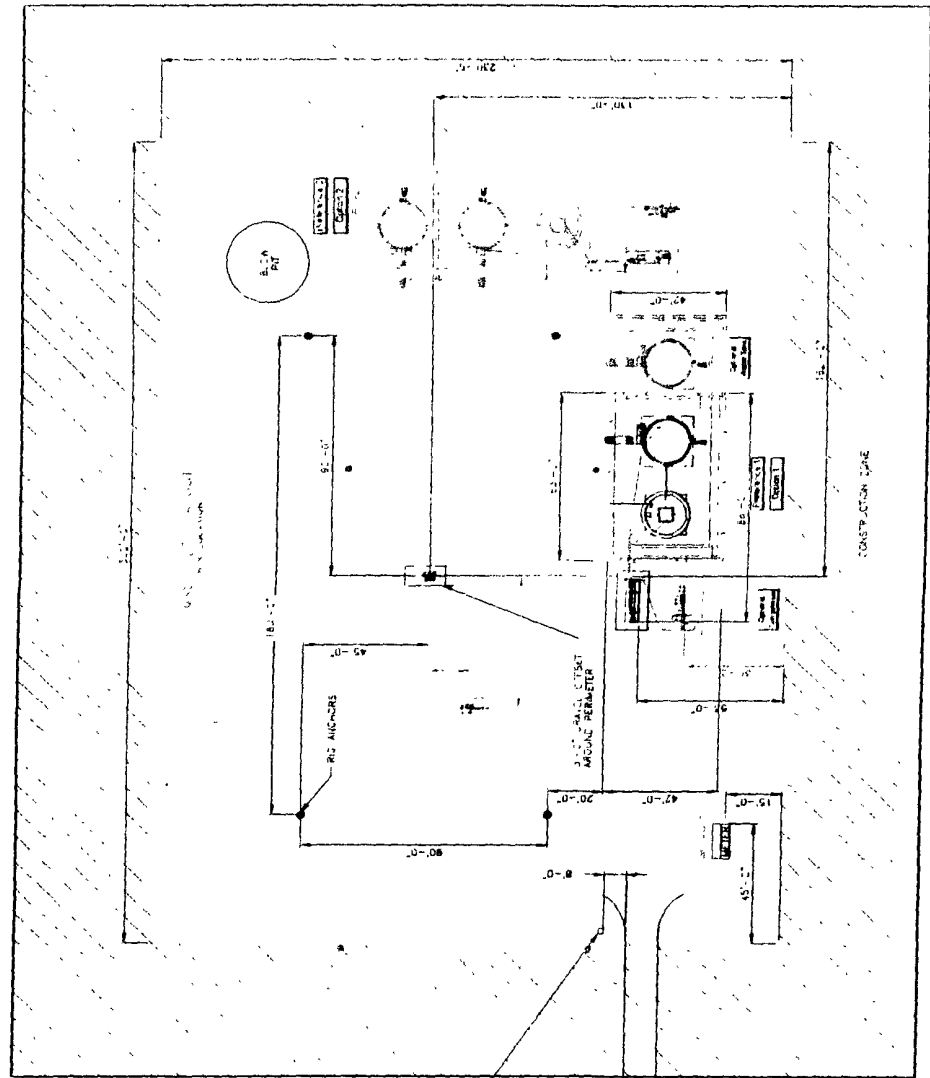


FIG. 1
SALES LINE
POT LINE
OIL LINE

ALL DIMENSIONS ARE IN FEET AND INCHES
ALL DIMENSIONS ARE TO THE CENTER OF THE LINE

COMBUSTION PLANT										REVENUE										EXPENSE										NET									
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CONOCOPHILLIPS COMPANY

**SAN JUAN 32-8 UNIT #23N
1291' FNL, 1290' FWL
SECTION 14, T-31-N, R-8-W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
NAD 83 LAT.: 36.900829°N LONG.: 107.649519°W
ELEV.: 6653 NAVD88
NO NEW ACCESS**

FROM THE INTERSECTION OF HWY. 550 AND HWY. 64 IN
BLOOMFIELD, NM:

- GO EAST ON HWY. 64 FOR 11.7 MI. TURN LEFT (NORTH) ON HWY. 511.
- GO NORTH ON HWY. 511 TO NAVAJO DAM.
- GO 7.7 MI. NORTH OF NAVAJO DAM. TURN RIGHT (EAST) OFF HWY 511 ONTO WELL: SJ 32-8 #23M. NEW WELL IS TWINNED HERE.